INDEX

to 'Electronics & Power'

Volume 16 1970

A

Adkins, B.M. *OECD's Dragon reactor* (letter) 260
Advertising exposed (letters) 59, 141, 235, 257, 294, 346, 382
Aerials, new, for satellite reception 55
Agro-industrial complex by E. M. Walsh 52
Agro-industrial complex (letters) 234, 294, 383
Air-traffic control, Mediator will update 99
Aleksander, I. *Brain cell to microcircuit* 48
Aleksander, I. *Education and learning* (letter) 95
Alston, L. L. *Electrical research in British Railways* 3
Andrews, A. M. *Fair deal for the inventor* (letter) 347
Announcements to IEE members 32, 76, 116, 143, 190, 236, 273, 297, 349, 385, 426, 465
Annual Report of the IEE Council for 1969–70 177
Antimatter detector, liftoff approaches for 231
Antistatic nuclear air gun 405
Apps, L. T. *Metallised plastics capacitors for electronics* 369
Arc welding, counting and classification system for 101
Architect and power engineering, the by Lord Holford and M. H. Shepheard 449
Arthur, G. F. *Fair deal for the inventor* (letter) 423
Articles in E & P (letter) 259
Arulanandam, S. C. *Whither the IEE?* 62
Ascension—first operational earth station in the Apollo network 260
Aspden, H. *Astrophysics* (letter) 97
Aspden, H. *Radiant electrons* (letter) 234
Astrophysics (letters) 97, 189
Automation for the mariner 93

B

Bad connections (letters) 294, 346, 447
Baldwin, L. V., Churchill, R. J., Lord, W., and Maxwell, L. M. *University, college and industrial co-operation in higher education—projects Colorado* SURGE *and* COTIE 13
Beeforth, T. H. *Fast multiplying* (letter) 59
Bell, D. A. *Education and creativity* (letter) 381
Bellairs, G. ff. *Agro-industrial complex* (letter) 234
Bellairs, G. ff. *Metrication* (letter) 62
Bertenshaw, N. W. *Advertising exposed* (letter) 382
Besag, E. *Supply connections* (letter) 446
Binding of E & P (letters) 259, 347, 381, 423
Bioelectrical engineering, power sources in by F. E. Whiteway 309
Bird, R. H. *Economic quality in component manufacture* 65
Bishop, K. G. T., Kemp, W. D., and Probert, E. D. *The Inner London Education Authority television system* 322
Blashill, T. *Gain margin* (letter) 235
Blood laboratory, mobile, now in circulation 336
Bolton, K. G. W. *Electricity-supply distribution* 124
Books received 109, 256, 334, 388
Booth, H. J. *Technology gap or management gap?* 219
Boothman, A. J. *Skynet parametric amplifier* (letter) 348
Bowers, B. *Wheatstone and the generation of electricity* 253
Bradley, R. T. *Supply connections* (letter) 446
Brain cell to microcircuit by I. Aleksander 48
Bray, D. G., and Cowell, T. K. (See Cowell)
Bray, P. R. *Obituaries* (letter) 31
Bridgman, A. H. S. *Advertising exposed* (letter) 257
Brown, F. L. *Subscription form* (letter) 191
Brown, Prof. J. IEE Electronics Division Chairman 1970–71 363
Bruce, C. E. R. *Astrophysics* (letter) 97, 189
Brundrett, Sir Frederick. *The sea of opportunity* 160
Brushless a.c. motor, low-speed 272
Buchan, M. F. *The pursuit of knowledge* (letter) 61
Bullingham, J. M. *Prepacked circuit analysis* 262
Burnby, M. W. *Professional engineers and trade unions* (letter) 60
Burnett, L. C. *Subscription forms* (letter) 190
Burnham, C. S., and McDonald, G. J. (See McDonald)

C

CEI annual report 274
Cable factories, new, mechanical-handling techniques used in 455
Cables down under 175
Callaway, B. M. *What's in a name?* (letter) 187
Calvert, B. *Efficiency in the distribution of electricity* 68
Camera, new, for i.c. maskmakers 209
Campbell, I. D. *Engineers and management* (letter) 235
Campbell, I. D. *Metrication* (letter) 233
Campbell, T. C. *Metrication* (letter) 188
Cancer countermeasures? 204
Car lighting by c.a.d. 208
Chadwick, P. J. *Subscription forms* (letter) 98
Challans, B. W. S. *Binding of E & P* (letter) 347
Chapman, R. F. *Industrial data acquisition for the 1970s* 166
Charge-coupled devices for complex circuits 225
Churchill, R. J., Lord, W., Maxwell, L. M. and Baldwin, L. V. (See Baldwin)
Circuit artwork, automatic drawing of 133
Circuit breakers, air-blast, based on modular concept 134
Circuit conventions (letters) 293, 383, 384, 424, 447
Circuit designer, whither the?—the impact of future trends in electronics by C. den Brinker 110
Clarke, R. L. *What's in a name?* (letter) 187
Clinch, C. E. *Track selection* (letter) 348
Coaxial system, new, to begin tests in USA 373
Coleman, J. P. *Creating economic wealth from technology* 285
Colour-television camera incorporates miniature computer 373
Communication 2
Communication in tunnels 380
Communication, the structure of by S. Towill 337
Component manufacture, economic quality in by R. H. Bird 65
Component quality (letter) 187
Computer control for buses? 134
Computer for Scottish Grid 7
Computer-generated displays, realistic by J. A. Treece 205
Computer, modular, for military use 327
Computers 281
Computers in the classroom by D. M. Taub 73
Conformance, quality and product description by J. M. Groocock 456
Connecting rods, balancing, at high speed 405
Contacts, semiconductor, improved 7
Control, electrohydraulic for artificial arm 186
Cowell, T. K., and Bray, D. G. *Measuring the heart's output* 150
Cripps, L. G. *Electronics in cars* 394
Cryogenic cable begins test programme 26
Cullwick, E. G. *Network conventions* (letter) 189
Current comparators in transformer calibration 197
Cutting metal down to size 344
Cybernetic learning machine 26

D

D.C. tachogenerator, new, noise level reduced in 344
Data acquisition, industrial, for the 1970s by R. F. Chapman 166
Data system for new Norwegian research ship by D. Jahr 58
Davis, C. G. *The Bell picturephone system* 193
den Brinker, C. *Whither the circuit designer?—the impact of future trends in electronics* 110
Designer's dilemma, the by E. G. Goodhew 335
Diamond heat sinks 101
Dielectric lens uses foam glass 315
Dielectric, new, may have wide applications 426
Digital computer, large, automation of the design and manufacture of a by C. D. Marsh 375
Digital control of large systems 422
Digital voltmeter, new, r.t.l. used in 276
Distribution efficiency (letter) 140, 187
Drummond, J. S. *Fiat lux* (letter) 30
Dynamic analysis for the automobile industry 8

E

Eades, R. A. *Explaining metrication* (letter) 29
Eastwood, E. *Radar meteorology* 434
Economics—how to justify any decision (almost) 41
Edmundson, D. *Problems and opportunities* 1
Education 41, 281
Education and creativity (letter) 381, 446
Education and learning (letter) 95
Education—relationship between universities and industry 357
Edwards, G. J. *Network conventions* (letter) 60
Erratum 99
Efficiency in the distribution of electricity by B. Calvert 68
Elections and transfers 31, 77, 116, 191, 236, 273, 298, 350
Electrical equipment for motor vehicles—recent developments by A. N. Partridge 400
Electrical industry, the impact of advanced technology on the by Lord Nelson of Stafford 441
Electrical research in British Railways by L. L. Alston 3
Electrical research in Poland by J. Podoski 106
Electricity from the rubbish heap 345
Electricity sales 42
Electricity-supply distribution by K. G. W. Bolton 124
Electroluminescence and its applications by A. R. Peaker 329
Electron beams, high-power, provide new heating tool 185
Electron microscopy and Xray microanalysis, new instrument combines 102
Electron-microscopy service, ERA provides unique 101
Electronic control for antilock braking 291
Electronic measurement in the automobile industry by M. H. Westbrook 406
Electronics exports 243
Electronics in cars by L. G. Cripps 394
Electronics letters (letter) 258
Ellis, J. H. *Metrication* (letter) 61
Endersby, J. *Advertising exposed* (letter) 346
Engineer in society 84, 123, 204
Engineer in society (letter) 59
Engineering arts (letter) 29
Engineering history: classical theory and practice 159
Engineers and management (letters) 140, 235
Engineers' ethics (letter) 424
Engineers' Guild survey (letter) 446
Engineers, tomorrow's (letter) 27
Evolving machine, the (letters) 139
Evolving machine—the larger context of modern technology by C. Robb 9
Examination assessment (letter) 142, 233

F

Fair deal for the inventor (letters) 347, 423, 447
Fairmaner, D., and Steel, J. G. *Obituaries* (letter) 31
Faraday Medal: 47th award to Sir Hamish D. MacLaren 75
Fast multiplying (letter) 59
Fast reactor, Dounreay prototype by W. J. Outram 43
Feinberg, R. *What's in a name?* (letter) 98
Fell, S. J. *Metrication* (letter) 188
Ferroelectric ceramic shows promise for information display 427
Fiat lux (letters) 30, 99
Field-effect-transistor controlled switch announced 275
Fletcher, J. F. *Metrication* (letter) 96
Flexible circuits produce faster memories 276
Flue ducts, new protection for 374
Ford, W. *Technicians in industry* (letter) 381
Format of E & P (letters) 142, 191, 381
Forster, W. J. *Obituaries* (letter) 260
Foster, A. S. N. *Binding of E & P* (letter) 259
Free advertising? (letter) 382

G

Gain margin (letters) 142, 235
Galaxy brings automatic stargazing to Edinburgh 100
Gamlin, J. F. *The evolving machine* (letter) 139
Gange, H. G. *Science and philosophy* (letter) 236
Gange, H. G. *The evolving machine* (letter) 139
Garrard, C. J. O. *The agro-industrial complex* (letter) 294
Garrett, J. *Technical journals* (letter) 142
Gas leaks, detecting, electronically 8
Gas-turbine exports for power plant 192
Generator, atomic, powers lunar experiments 26
Gleadle-Richards, E. M. *What's in a name?* (letter) 258
Gledhill, F. G. *Articles in E & P* (letter) 259
Gledhill, F. G. *Engineer's Guild survey* (letter) 446
Gobbledegook (letter) 346
Golde, R. H. *Radioactive lightning protection* (letter) 346
Goodhew, E. G. *The designer's dilemma* 335
Grenier, M. *Radioactive lightning protection* (letter) 260
Grid control, online studied at CERL 271
Griffin, A. *Opinion* (letter) 236
Groocock, J. M. *Quality, product description and conformance* 456

H

H.F. radar, synthetic apertures for 315
H.V. valves pass acceptance tests 422
Halacsy, A. A. *An early breakthrough in railway electrification* 144
Hanstead, P. D. *Supply connections* (letter) 446
Harrison, R. J. *Whither the IEE?* (letter) 28
Head, J. E. *Plain words* (letter) 259
Headlamp conversion 399
Heart aid, mechanical, with externally rechargeable batteries 133
Heimer, H. *Power transformers* (letter) 448
High-stability supplies, providing, for CERN 292
Higher education, university, college and industrial co-operation in—projects Colorado SURGE *and* COTIE by L. V. Baldwin, R. J. Churchill, W. Lord and L. M. Maxwell 13
Hingley, P. D. *Advertising exposed* (letter) 257
Hobbs, J. D. *Metrication* (letter) 294
Hollingbery, P. L. *Royal George, true fate of the* (letter) 347
Holograms, branding, on metals 314
Holographic interferometer measures radiation distribution 427
Honorary Fellowship (IEE): Election of Prof. C. W. Oatley 75
Horvath, A. L. *Specific resistance* (letter) 141
Horwood, H. *Science and philosophy* (letter) 141
Howlett, F. C. *Hungarian railways* (letter) 234
Howton, K. D. *Whither the IEE?* (letter) 28
Hugh-Jones, T. W. *Supply connections* (letter) 383
Hungarian railways (letter) 234
Hunter, I. W. *Plain words* (letter) 188
Hurst, S. L. *Lost without trace* (letter) 348
Hyde, N. E. *Room at the top* (letter) 346
Hydroelectric powerhouse 345
Hydrostatic drives for vehicles developed at NEL 399

I

I.C. masks, new, combine transparency and durability 345
IEE Annual General Meeting, 1970 300
IEE Annual Report for 1969–70 177
IEE Control & Automation Division Chairman 1970–71. Prof. J. C. West 363
IEE Electronics Division Chairman 1970–71. Prof. J. Brown 363
IEE Power Division Chairman 1970–71. A.G. Milne. 363
IEE President 1970–71. Lord Nelson of Stafford 362
IEE Science, Education & Management Division Chairman 1970–71. R. W. Sillars 363
IEE, whither the? (letters) 28, 62
IEE wiring regulations and metric supplement 207
IMPATT-diodes, integral-heat-sink, batch fabrication of 56
Indicators, SERL develops new solid-state 25
Industrial effluents, the electrochemical treatment of by B. Surfleet 411
Industry—expense of spirit 2
Industry: Managing to survive 159
Industry—training for manufacture 321
Inner London Education Authority television system, the by K. G. T. Bishop, W. D. Kemp and E. D. Probert 322
Integrated-circuit process, new 185
Inventor, fair deal for the (letter) 259
Invisible fields made visible 272

J

Jahr, D. *Data system for new Norwegian research ship* 58
James, C. *Assessing student performance* (letter) 30
Jaroslawski, S. *Format of E & P* (letter) 381
Jelonek, Z. J. *Education and creativity* (letter) 446
Jointing, modified tool head eases 454
Jones, E. W. P. *Kay poles* (letter) 424
Jones, J. F. *Metrication* (letter) 188
Jones, M. J. B. *Explaining metrication* (letter) 29
Journal transformed (letter) 28
Joyce, A. G. E. *Fair deal for the inventor* (letter) 259

K

Kapp, in search of (letter) 348, 446
Kay poles (letter) 424
Kelvin Lecture (letter) 258
Kemp, R. J. *Life expectancy* (letter) 99
Kemp, W. D., Probert, E. D., and Bishop, K. G. T. (See Bishop)
Kershaw, B. L. *On the right track* (letter) 142
Khatib, H. *Distribution efficiency* (letter) 187
King, J. A. C. *In search of Kapp* (letter) 446
Kirchhoff, in defence of (letter) 347
Kirkham, A. C. J. *Measurement matters* (letter) 27
Knowledge, the pursuit of (letter) 61

L

Laithwaite, E. R. *Rack-and-pinion motors* 251
Lancashire, R. D. *Tomorrow's engineers* (letter) 27
Laser measurement on new tanker 133
Laws, R. A. *Views on E & P* (letter) 448
Laser, multicoloured dye 380
'Laser pen' draws circuit artwork 232
Laser writing for instant readout 57
Lasers operate continuously at room temperature 426
Lasers—the great levellers 327
Lasers used to align wing mirrors 399
Lawrenson, P. J. *Reluctance motors* (letter) 293
Laws, R. A. *Views on E & P* (letter) 423
Lead-acid batteries (letter) 28
Leader, D. *The agro-industrial complex* (letter) 294
Learning and education (letter) 139
Lee, T. *Advertising exposed* (letter) 59
Lehner, L. L. *The ubiquitous power transistor* 19
Leigh, J. R. *Views on E & P* (letter) 423
Leila, G. C. *Postgraduate experience* (letter) 97
Ley, K. J. *Bad connections* (letter) 346
Life expectancy (letter) 99
Light modulator, v.h.f. y.i.g. 64
Lighting, airport, some aspects of by C. C. Smith 85
Lightning theory (letter) 28
Lindley, B. C. *Technological forecasting and corporate long-range planning* 364
Linear-motor trains in French collieries 56
Liquid-crystal displays 196
Live-line working (letter) 29
'Live' lunar liftoff in colour? 276
Locomotives, new, for unusual conditions 55
Locke, R. A. *Engineer in society* (letter) 59
Locker, L. *Distribution efficiency* (letter) 140
Logic circuit uses two Gunn diodes 26
Lord Holford and Shepheard, M. H. *The architect and power engineering* 449
Lord Nelson of Stafford. IEE President 1970–71 362
Lord Nelson of Stafford. *The impact of advanced technology on the electrical industry* 441
Lord, W., Maxwell, K. M., Baldwin, L. V. and Churchill, R. J. (See Baldwin)
Lost without trace (letter) 348
Lynn, J. W. *Tensors on the brain* 268
Lythall, R. T. *Technical journals* (letter) 61

M

M.O.S. process, new, better reliability with 54
M.O.S. system, display addressed by 380
M.O.S. techniques used in telephone systems 261
McDonald, G. J., and Burnham, C. S. *Progress in marine radiocommunication* 210
McDowall, R. *Subscription forms* (letter) 258
Machines, talking to 64
MacLaren, Sir Hamish D., award of Faraday Medal to 75
Magnet, giant, installed at Rutherford laboratory 94
Management predictive reporting system by R. A. Peddie 340
Margolis, D. S. *Metrication* (letter) 96
Marine radiocommunication, progress in by G. J. McDonald and C. S. Burnham 210
Marketing research, industrial by R. C. Yates 169
Marland, E. A. *Media performance audit* (letter) 382
Marsh, C. D. *Automation of the design and manufacture of a large digital computer* 375
Marshall, R. C. *Public telephones* (letter) 383
Mask service for i.c. makers 327
Mass memory thinner than hair 231
Master layouts, precision drawing aid for 192
Maxwell, L. M., Baldwin, L. V., Churchill, R. J. and Lord, W. (See Baldwin)
Maynard, J. K. *Metrication* (letter) 61
Meares, O. M. *Engineers and management* (letter) 140
Measurement matters (letter) 27
Measuring the heart's output by T. K. Cowell and D. G. Bray 150
Medhurst, R. G. *Science and the paranormal* (letter) 27
Media performance audit (letter) 382
Mellor, C. H. *Lightning theory* (letter) 28
Memory, 'read mostly', uses glass switching 454
Metal particles, perfectly spherical 196
Metallised plastics capacitors for electronics by L. T. Apps 369
Meteorology, radar by E. Eastwood 434
Metrication (letters) 95, 141, 188, 233, 258, 294
Metrication, explaining (letter) 29, 62
Microcircuits, air isolation for better 186
Microcircuits, high resistors for 7
Microelectronics centre, new Enfield COT cradles 149
Microelectronics, puff for 185
Microfilm system, automated, optical scanning in 290
Microwave communication in gas-control network 454
Microwave frequencies measured digitally 25
Microwave oscillator, new, demonstrated, feasibility of 232
Microwave source 421
Microwave spectrometer, Gunn diode powers low-cost 7
Mills, C. A. *Bad connections* (letter) 447
Milne, A. G. IEE Power Division Chairman 1970–71 363
Minter, R. W. *Agro-industrial complex* 383
Minter, R. W. *Engineering arts* (letter) 29
Minter, R. W. *Lead-acid batteries* (letter) 28
Minter, R. W. *Learning and education* (letter) 139
Moawhango power dam modelled 57
Monolithic display from GE 197
Moor, M. *Advertising exposed* (letter) 141
Morris, D. G. O. *What's in a name?* (letters) 187, 258
Motors, a fair price for 42
Motors, unlaminated reluctance 445
Mullard, S. R. *The early days of the thermionic-valve industry—some personal recollections* 358
Multiplexer, common waveguide, simplifies satellite transponder design 467
Mundy, R. J. *Learning and education* (letter) 140

N

Naslin, P. *Metrication* (letter) 95
Nasser, C. N. *Models in psychology* (letter) 62
Nelson, of Stafford, Lord (See Lord Nelson of Stafford)
Network conventions (letters) 27, 60 (Erratum 99), 189
New products 35, 79, 119, 155, 199, 239, 277, 316, 352, 389, 429
Norris, E. T. *Power transformers—a proposed new standard rating* 282
Norton, J. P. *Opinion* (letter) 259
Norway's electrical industries 301
Nuclear power 42

O

OECD's Dragon (letter) 260
Oatley, Prof. C. W. Honorary Fellowship 75
Obituary 32, 77, 105, 143, 190, 236, 273, 297, 349, 384, 426, 448
Obituaries (letters) 31, 260
Ocean-mapping system, computerised 94
Officers of the IEE, 1969–70 103, 176
Officers of the IEE, 1970–71 414
On the right track (letter) 142
Opinion (letters) 236, 259
Osborne, M. I. *Free advertising?* (letter) 382
O'Sullivan, D. *Metrication* (letter) 189
Outram, W. J. *Dounreay prototype fast reactor* 43

P

P.V.C. insulation, hot, may produce HCl vapour 56
Pacific h.v.d.c. intertie inaugurated 374
Palmer, T. *A synchronous-motor experiment* (letter) 382
Pannett, R. F. *Format of E & P* (letter) 142
Partridge, A. N. *Electrical equipment for motor vehicles—recent developments* 400
Patents—the need for change 321
Paul, H. *Power transmission of the future—microwaves or superconductors?* 171
Peaker, A. R. *Electroluminescence and its applications* 329
Pedder, D. A. G. *Format of E & P* (letter) 191
Peddie, R. A. *A management predictive reporting system* 340
Perkins, A. J. *Research grants* (letter) 190
Phipps Hornby, W. M. *Metrication* (letter) 97
Phipps Hornby, W. M. *True fate of the Royal George* (letter) 424
Pickup, stereophonic, uses m.o.s. circuits 209
Picturephone, Bell system, the by C. G. Davis 193
Pipe surveyor, underground 422
Plain, G. *Fiat lux* (letter) 99
Plain words (letter) 188, 259, 347
Podoski, J. *Electrical research in Poland* 106
Poland, electrical research in by J. Podowski 106
Pollard, J. R. *Technological progress in telecommunication switching* 305
Post Office looks to the future 374
Post, R. J. *Binding of E & P* 381
Potter, O. N. *Engineers' ethics* (letter) 424
Potok, M. H. N. *Electronics Letters* (letter) 258
Power engineering and the architect by Lord Holford and M. H. Shepheard 449
Power for productivity—a sketch of the UK electricity supply industry, 1948–69 by R. Richardson 458
Power pack, solar 153
Power service for planners 276
Power transformers (letter) 448
Power transformers—a proposed new standard rating by E. T. Norris 282
Power transmission of the future—microwaves or superconductors? by H. Paul 171
Power-tube production at Lincoln, EEV maintains 197
Prepacked circuit analysis by J. M. Bullingham 262
Prichard, G. D. *Technical journals* (letter) 142
Probert, E. D., Bishop, K. G. T., and Kemp, W. D. (See Bishop)
Problems and opportunities by D. Edmundson 1
Product description, conformance and quality by J. M. Groocock 456
Professional engineers and trade unions (letter) 60
Profit motive (letter) 382
Psychology, models in (letter) 62
Public telephones (letter) 383

Q

Quality, product description and conformance by J. M. Groocock 456

R

Rack-and-pinion motors by E. R. Laithwaite 251
Radar meteorology by E. Eastwood
Radar pictures transmitted via telephone lines 57
Radar, pulsed a.m./f.m. continuous-wave 63
Radar receivers, integrated 232
Radar technique, new, identifies small floating obstacles 25
Radar used in search for oil 56
Radiant electrons (letter) 234
Radioactive lightning protection (letter) 260, 346
Radio-frequency standard 8
Radiotelescope, new, to probe lower wavelengths 314
Railway electrification, an early breakthrough in by A. A. Halacsy 144
Rain-rate monitor, electronic 94
Rajaraman, K. C. *Technical journals* (letter) 260
Redundant complexity (letter) 383
Reed-switch production, automatic 291
Reekie, A. F. *Advertising exposed* (letter) 141
Reliability in action by Z. S. Siemaszko 223
Reluctance motor, new type of 153
Reluctance motors (letter) 293
Research grants (letter) 190
Resistance bridge, high-accuracy 208
Resistance measurement, towards better 83
Resistor, ideal, towards the 468
Richards, T. L. *Specific resistance* (letter) 234
Richardson, R. *Power for productivity—a sketch of the UK electricity-supply industry, 1948–69* 458
Rickard, T. E. *Speed in trevithicks?* (letter) 98
Robb, C. *Evolving machine—the larger context of modern technology* 9
Robbins, R. M. *The Victoria line and its successors* 226
Robinson, L. M. *Telecommunication support for the Apollo programme* 244

Rock, A. *Profit motive* (letter) 382
Room at the top (letter) 346
Rotors, making, automatically 455
Rowland, F. E. *Engineer in society* (letter) 59
Royal George, true fate of the (letter) 347, 424
Russell, C. R. *Metrication* (letter) 96
Russell, D. M. *Metrication* (letter) 233
Rutenberg, D. *Kirchhoff, in defence of* (letter) 347

S

SIRA, new look for 243
SRC, engineering and the 83
Saunders, H. *Fair deal for the inventor* (letter) 423
Saunders, P. J. W. *Plain words* (letter) 347
Science and philosophy (letters) 140, 236
Science and technology, changing relations between, and their effect on international co-operation by A. P. Speiser 128
Science and the paranormal (letter) 27
Scott, W. J. *Fair deal for the inventor* (letter) 447
Scroggie, M. G. *Advertising exposed* (letter) 235
Scroggie, M. G. *Circuit conventions* (letter) 384
Scroggie, M. G. *Network conventions* (letter) 27
Sea of opportunity, the by Sir Frederick Brundrett 160
Semiconductors—slicing the market 123
Severn-Wye tunnel will form Supergrid link 453
Sheldon, C. W. *Bad connections* (letter) 294
Shepheard, M. H., and Lord Holford (See Lord Holford)
Shortest time recorded 380
Siemaszko, Z. S. *Reliability in action* 223
Silicon target used in new television-camera tube 467
Sillars, R. W. IEE Science, Education & Management Division Chairman, 1970–71 363
Skin effect at d.c. 290
Skynet goes to sea 296
Skynet parametric amplifier (letter) 348
Smith, C. C. *Some aspects of airport lighting* 85
Smith, D. *Metrication* (letter) 141
Snowden, R. A. *Examination assessment* (letter) 142 (Erratum 191)
Sofiano, G. C. *A journal transformed* (letter) 28
Solid-state light sources produce range of colours 64
Solid-state 'valves' for h.v.d.c., progress in 289
Space technology 357
Specific resistance (letters) 141, 234
Speed in trevithicks? (letter) 98
Speiser, A. P. *Changing relations between science and technology and their effect on international co-operation* 128
Spot-weld strength, nondestructive assessment of 101
Standard machine, evolution of the by D. D. Stephen 90
Stefani, I. L. *Circuit conventions* (letter) 293, 447
Stephen, D. D. *The evolution of the standard machine* 90
Stevens, D. R. *Subscription forms* (letter) 258
Stewart, A. L. *Metrication* 258
Storage tube, SiO_2 272
Streets, G. *Woodhead tunnels* (letter) 62
Student performance, assessing (letter) 30
Subscription forms (letters) 98, 190, 191, 258
Summers, A. *Component quality* (letter) 187
Superconducting magnet for CERN 94
Superconductor, glass–metal 314
Supply connections (letter) 383, 446
Supplying a large pulsed load 208
Surfleet, B. *The electrochemical treatment of industrial effluents* 411
Survey of professional engineers 203
Swift, G. E. *Whither the IEE?* (letter) 28
Switches, fast-closing megampere 63
Synchronous-motor experiment (letter) 382

T

Taub, D. M. *Computers in the classroom* 73
Technical journals (letters) 61, 141, 260
Technical publications 12, 51, 89, 216, 295, 349
Technicians in industry (letter) 381
Technological forecasting (letter) 257
Technology, creating economic wealth from by J. P. Coleman 285
Technological forecasting and corporate long-range planning by B. C. Lindley 364
Technology gap or management gap? by H. J. Booth 219
Telecommunication support for the Apollo programme by L. M. Robinson 244
Telecommunication switching, technological progress in by J. R. Pollard 305
Telemetry, contactless, in turbine instrumentation 315
Telephone networks, fast signalling in 154
Telephone switching, new cell developed for 271
Teleprinter, portable 290
Television, dial-a-programme, technically viable 56
Television, direct, from satellites 64
Tensors on the brain by J. W. Lynn 268
Thermionic-valve industry, the early days of the, some personal recollections by S. R. Mullard 358
Thermistor alarm system for babies 422
Thomas, D. H. *Examination assessment* (letter) 233
Thyristors for handling megawatts 348
Thyristors used in Swedish link 209
Tile manufacture, automation aids 232
Tompsett, D. H. *Kelvin Lecture* (letter) 258
'Total systems capability', providing, for electrical projects 328
Towill, S. *The structure of communication* 337
Track selection (letters) 348, 383
Transducers, flexible, in silicone rubber 57
Transistor, power, the ubiquitous by L. L. Lehner 19
Transistors, composite power, for high frequencies 186
Transport engineering 393
Treece, J. A. *Realistic computer-generated displays* 205
Tuson, K. H. *Metrication* (letter) 61

U

Urban transport—new lines of thinking 304

V

Vehicle-speed monitor gives digital readout 405
Views on E & P 423, 448
Victoria line and its successors by R. M. Robbins 226
Video recording, electronic, now in production 421
Video tape, new, developed 271
'Voiceprints' identify speech characteristics 153
Voice recorder, inflight 421
Voltmeter, d.c. clip-on 153

W

Waldram, J. M. *Live-line working* (letter) 29
Walker, A. A. C. *Technical journals* (letter) 260
Walker, J. H. *Science and philosophy* (letter) 140
Walker, J. H. *Which units?* (letter) 259
Wall heating demonstrated at Newcastle 209
Walsh, E. M. *Agro-industrial complex* 52
Walsh, E. M. *Agro-industrial complex* (letter) 234
Watkins, D. J. *Track selection* (letters) 383
Waveguide communication, trials for 154
Way to the stars? (letter) 423
Weak signals, technique for extracting, by real-time integration 63
Weather maps, instant, for US Navy 275
Weatherald, K. B. *Fair deal for the inventor* 347
Webster, W. A. *Circuit conventions* (letter) 383
Weighing, electronic, for purchase totalling 196
Wells, R. *Circuit conventions* (letter) 424
West, Prof. J. C. IEE Control & Automation Division Chairman 1970–71 363
Westbrook, M. H. *Electronic measurement in the automobile industry* 406
What's in a name? (letters) 98, 187, 258
Wheatstone and the generation of electricity by B. Bowers 253
Which units? (letter) 259
Whiteway, F. E. *Power sources in bioelectrical engineering* 309
Whither the IEE? (letter) 28, 62
Whitley, M. H. *Advertising exposed* (letter) 294
Why, J. F. *Way to the stars?* (letter) 423
Wilde, D. S. *Redundant complexity* (letter) 383
Williams, G. E. *Gobbledegook* (letter) 346
Wilson, A. C. *Kapp, in search of* (letter) 348
Winton, R. C. *Plain words* (letter) 259
Woodhead tunnels (letter) 62
Woolbridge, M. C. *Advertising exposed* (letter) 235

X

X ray microanalysis and electron microscopy, new instrument combines 102

Y

Yates, R. C. *Industrial marketing research* 169
Young, J. F. *Gain margin* (letter) 142
Young, K. J. *Metrication* (letters) 61, 233
Young, K. J. *Technological forecasting* (letter) 257
Young, L. *Metrication* (letter) 96

Z

Zener diodes in pressure gauge 101

Some recent books

Allison, D (editor) The R & D game 428
Aspden, H. Physics without Einstein 198
Bell, D., and Griffin, A. W. J. (editors) Modern control theory and computing 138
Benson, F. A. Millimetre and submillimetre waves 386
Brichta, A. M., and Sharp, P. E. M. From project to production 387
Carnt, P. S., and Townsend, G. B. Colour television. Vol. 2—Pal, Secam and other systems 388
Chandor, A., Graham, J., and Williamson, R. Practical systems analysis 266
Christiansen, W. N., and Högbom, J. A. Radiotelescopes 137
Clarke, A. C. Glide path 387
Cooper, M. J. What computers can do—a guide for the plain man 351
Davenport, W. H., and Rosenthal, D. (editors) Engineering: its role and function in human society 33
Dunster, D. F. Semiconductors for engineers 137
Fishlock, D. (editor) A guide to superconductivity 137
Ghandi, S. K. The theory and practice of microelectronics 34
Harmuth, H. F. Transmission of information by orthogonal functions 138
Harris, M. R., Lawrenson, P. J., and Stephenson, J. M. Per-unit systems: with special reference to electrical machines 428
Hartcup, G. The challenge of war—scientific and engineering contributions to world war II 266
Hemingway, T. K. Circuit consultant's casebook 386
Higgins, R. J. Experimental electronics: an introductory laboratory manual for physical scientists 217
High-voltage applications of epoxide resins 267
Hopkinson, R. G., and Kay, J. D. The lighting of buildings 218
Jensen, W. B. Nuclear power 198
Jessop, G. R. V.H.F.-u.h.f. manual 33
Power system protection. Vol. 2—theory 217
McGee, J. D., McMullan, D., Kahan, E., and Morgan, B. L. (editors) Advances in electronics and electron physics—Vols. 28A and 28B. Proceedings of the fourth symposium held at Imperial College, London, September 16–20, 1968 267
Meetham, R. Information retrieval: the essential technology 351
Montieth, G. S. R & D administration 136
Nicholls, D. S. Electronic solid-state control 267
Norman, D. A. Memory and attention 136
Poulton, E. C. Environment and human efficiency 428
Pratt, W. K. Laser communication systems 33
Prime, H. A. Modern concepts in control theory 138
Richards, C. J. *et al.* Mechanical engineering in radar and communications 33
Rose, H., and Rose, S. Science and society 217
Ross, D. Lasers, light amplifiers and oscillators 351
Smith, H. M. Principles of holography 266
Snelling, E. C. Soft ferrites—properties and applications 198
Sze, S. M. Physics of semiconductors devices 34
Taylor, E. O., and Boal, G. A. (editors) Power system economics 217
Thomas, H. A. Automation for management 266
Tickle, A. C. Thin film transistors 217
Townsend, G. B. Pal colour television 198
Uman, D. B. New product programs: their planning and control 136
Uman, M. A. Lightning 267
Vernon, M. D. Human motivation 135
Waller, W. F. (editor) Modular constructions 217
Wills, G., Ashton, D., and Taylor, B. (editors) Technological forecasting and corporate strategy 135
Wylie, F. J. Choosing and using ship's radar 218